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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,434	05/05/2004	Niall R. Lynam	DON01 P-1152	3433
28101	7590	11/06/2006	EXAMINER	
VAN DYKE, GARDNER, LINN AND BURKHART, LLP 2851 CHARLEVOIX DRIVE, S.E. P.O. BOX 888695 GRAND RAPIDS, MI 49588-8695			AMARI, ALESSANDRO V	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/709,434

Applicant(s)

LYNAM, NIAL R.

Examiner

Alessandro Amari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 August 2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt US 6,030,084 in view of Gillich et al US 6,709,119.

In regard to claim 1, Schmidt teaches (see for example, Figures 2, 3) a wide angle reflective element for a mirror assembly for a vehicle comprising a polymeric mirror substrate (12) having an exterior surface comprising a less curved inboard surface or surface and a more curved outboard surface as shown in Figures 2 and 3, said polymeric mirror substrate comprising a polymeric resin material as described in

column 3, lines 39-50, said substrate having a reflector (15) disposed on a surface thereof to provide a reflective element for a vehicle mirror assembly.

Regarding claim 2, Schmidt et al teaches that said reflector is disposed at an inner surface (14) of said substrate opposite said exterior surface as shown in Figure 2.

However, in regard to claim 1, Schmidt does not teach a thin at least partially flexible glass sheet, said thin at least partially flexible glass sheet having an attaching surface opposed to and adhered to said exterior surface of said polymeric mirror substrate so as to provide an anti-abrasion sheet at said outboard and inboard surfaces of said exterior surface of said polymeric mirror substrate, said thin at least partially flexible glass sheet conforming to said exterior surface of said polymeric mirror substrate when adhered thereto, said thin at least partially flexible glass sheet having a thickness of less than approximately 0.8 mm.

In regard to claim 1, Gillich et al teaches (see Figure 1) a thin at least partially flexible glass sheet (101) said thin at least partially flexible glass sheet having an attaching surface opposed to and adhered to said exterior surface so as to provide an anti-abrasion sheet at said outboard and inboard surfaces of said exterior surface of said polymeric mirror substrate, said thin at least partially flexible glass sheet conforming to said exterior surface of said polymeric mirror substrate when adhered thereto, as described in column 1, lines 56-67, column 2, lines 1-5 and column 8, lines 28-37, said thin at least partially flexible glass sheet having a thickness of less than approximately 0.8 mm having a thickness of less than approximately 0.8 mm as described in column 2, lines 32-39. Although the prior art does not specifically disclose

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the claimed partially flexible glass sheet, this is seen to be an inherent teaching of the device since glass sheets thinner than 100 μm show bending properties and are therefore flexible. Furthermore, the applicant's specification does not define the term "partially flexible" in any terms of degree, so the reference is taken to read on this feature.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the glass film as taught by Gillich et al in the substrate of Schmidt in order to provide for a protective layer that protects the underlying layers from mechanical damage.

Regarding claims 3 and 4, Schmidt discloses that said substrate is cut from a molded or extruded or cast strip or sheet, said glass sheet being laminated to said strip cut from said strip or sheet, at least two substrates being or sheet as described in column 3, lines 39-65 and regarding claim 4, Schmidt discloses wherein said reflector comprises a reflective film applied to said strip or sheet on an inner surface of said substrates opposite said exterior surface as described in column 3, lines 39-65.

Applicant should note that claims 3 and 4 are product-by-process claims and in product-by-process claims, "once a product appearing to be substantially identical is found and a 35 U.S.C. 102/103 rejection [is] made, the burden shifts to the applicant to show an unobvious difference." MPEP 2113. This rejection under 35 U.S.C. 102/103 is proper because the "patentability of a product does not depend on its method of production."

In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985).

Regarding claim 5, Schmidt teaches (see Figure 2) wherein said reflector comprises a reflective film (15) applied to an inner surface (14) of said substrate opposite said exterior surface as described in column 51-57.

Regarding claim 11, Schmidt discloses that said reflective element is adapted for use as an exterior rearview mirror assembly as described in column 1, lines 15-21.

Regarding claim 8, Schmidt in view of Gillich et al discloses the claimed invention as set forth above except for the rearrangement of the reflective film being applied to the exterior surface of the substrate, said glass film being applied to an exterior surface of the reflective film. It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the reflective film to be applied to the exterior surface of the substrate, since it has been held that a mere rearrangement of elements without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the reflective film to be applied to the exterior surface for the purpose of easier and more efficient manufacturing of the reflective element. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)

4. Claims 6, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt US 6,030,084 in view of Gillich et al US 6,709,119 and further in view of Wheatley et al US 5,262,894.

Regarding claims 6, 7, 9 and 10, Schmidt in view of Gillich et al teaches the invention as set forth above but regarding claims 6 and 9, does not teach that said reflective film comprises a polymeric reflective film at least one of laminated, adhered and applied to said inner or exterior surface of said substrate and regarding claims 7

and 10 does not teach that said reflective film comprises an all polymer thin film multilayer high reflective mirror comprising multiple coextrusion of many plastic layers to form a highly reflective mirror.

Regarding claims 6 and 9, Wheatley et al teaches (see Figure 1) that a reflective film is a polymeric reflective film at least one of laminated, adhered and applied to said exterior surface of said substrate and regarding claims 7 and 10 Wheatley et al teaches that said reflective film comprises an all polymer thin film multilayer high reflective mirror comprising multiple coextrusion of many plastic layers to form a highly reflective mirror as shown in Figure 1 and as described in column 6, lines 65-68, column 7, lines 45-68, column 11, lines 61-68 and column 12, lines 1-11.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the polymeric film of Wheatley et al for the reflective element of Schmidt in view of Gillich et al in order to provide for a reflective element which will not corrode or flake.

Response to Arguments

5. Applicant's arguments filed on 29 August 2006 have been fully considered but they are not persuasive.

The Applicant argues that the combination of Gillich et al and Schmidt does not teach the claimed invention, specifically, a thin flexible glass sheet. The Applicant asserts that the protective layer of Gillich et al is a hard coat in contrast to the thin flexible glass sheet of the claimed invention and such hard coats are provided on the

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first and outer or exterior surface of the reflective element which is contacted by exterior elements and typically applied by dip coating or vacuum deposition techniques. The Applicant further asserts that that hard coat of Gillich is not a thin flexible glass sheet as shown in Figure 5 of the present application and that the hard coat of Gillich et al has a maximum thickness of 1000 nanometers which is less than 1×10^{-9} mm thick and thus such a hard coat is not providable as a thin flexible sheet as disclosed and claimed in the present invention.

In response to this argument, the Examiner would like to point out that the coat of Gillich et al is also taught as being a sheet which can be rolled. The Examiner directs the Applicant's attention to column 8, lines 28-37 of Gillich et al which is reproduced below:

The transparent layers, and here in particular the protective layer, can also be obtained by a flame pyrolytic method. It is also possible to use different processes for the individual layers of a sequence of layers. For example, **in the case of rolled products, e.g. foils, strips or sheets**, or in the case of laminates containing an aluminum layer, individual coatings or preferably all coatings are applied or deposited in a continuous process, usually the belt or continuous process, also known as coil coating.

Furthermore, the Examiner maintains that Gillich et al (in combination with Schmidt) does teach a thin flexible glass sheet which serves as a protective layer (as described in the abstract and column 1, lines 56-67 and column 2, lines 1-5). As pointed out by the Examiner (and reaffirmed by the Applicant in his arguments), the sheet of Gillich et al is described as having a maximum thickness of 1000 nanometers which is less than 1×10^{-9} mm thick. Therefore, the glass sheet of Gillich which is less than 1×10^{-9} mm thick is at least partially flexible because inherently ultra thin glass sheets show bending properties if they are thinner than 100 μm .

The Applicant further argues that the hard coat of Gillich et al is applied to the body by deposition in vacuum or by thermal vaporization or by electron beam vaporization or by sputtering or by plasma vaporization or by chemical vapor deposition. Thus the Applicant argues the hard coat does not have an attaching surface for adhering to an exterior surface of a polymeric mirror substrate.

In response to this argument, the Examiner would again like to point out that the coat of Gillich et al is also taught as being a sheet which can be rolled (see column 8, lines 28-37 as reproduced above). Thus Gillich et al does teach a flexible glass sheet which would therefore have an attaching surface for adhering to an exterior surface of a mirror substrate.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alessandro Amari whose telephone number is (571)272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ava^{mm}
30 October 2006

Alessandro Amari
ALESSANDRO AMARI
PRIMARY PATENT EXAMINER